**Activities to help students understand the concept of multiplying mixed numbers.**

This is the final step in mastering the multiplication of fraction process. Before beginning this step the students should have developed strong visual representations of multiplication of fractions with a whole number and the multiplication of two fractions less than one. In this section the students develop representations of the multiplication of mixed numbers and the process of converting the mixed numbers into improper fractions. Prior to this section, you should assess that the students already have an understanding of converting mixed numbers into improper fractions.

Preliminary knowledge assessment and practice

Conceptual understanding of improper fractions

<http://www.edhelper.com/math/fractions_tg513.htm>

Conceptual understanding of mixed numbers

<http://www.edhelper.com/math/fractions_tg514.htm>

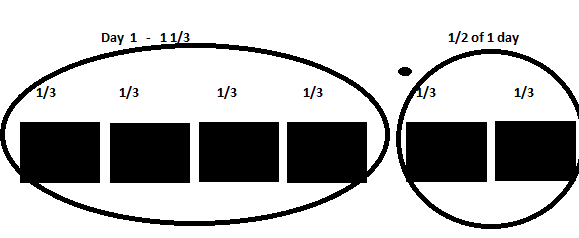
Converting improper fractions to mixed numbers

<http://www.edhelper.com/math/fractions5.htm>

Converting mixed numbers to improper fractions

<http://www.edhelper.com/math/fractions6.htm>

* Story Problem Use the following story problems to help students develop representations for the concept of multiply with mixed numbers.
  + It takes your brother 1 ½ gallons of gas to mow the lawn. How much gas would he use if he mowed the lawn 4 times? (4 x 1 ½ = 6 gallons)
  + Carlos used 3 ½ tubes of super glue to assemble his model. If each tube holds 2 ½ oz how much glue did he use. (3 ½ x 2 ½ = 8 ¾)
  + A worm crawls 1 1/3 feet each day. How far would the worm be in 1 ½ days.



* Pictorial Model
  + Have students view the Utube video on multiplying mixed numbers using arrays

<http://www.youtube.com/watch?v=OftyCThfKeY>

* + Have students practice doing arrays with mixed number problems.

Arrays template

* + - 1 1/6 x 1 ½
    - 2 ¼ x 1 ½
    - 2 2/3 x 1 ½
    - 3 1/3 x 1 1/3
* Symbolic practice worksheet

<http://www.edhelper.com/math/fractions11.htm>

* Assessment

<http://www.helpingwithmath.com/printables/worksheets/fra0501fraction09.htm>

Additional information and activities:

Soccer Shootout- Students answer multiplication questions to score points or block shots in a soccer game. It has different playing levels.

<http://www.funbrain.com/cgi-bin/fract.cgi>

Mr. Duey raps a song showing the procedure for converting improper fractions to proper fractions, changing fractions to decimals, and changing fractions to percents.

<http://www.teachertube.com/viewVideo.php?video_id=24266&title=Mr_Duey___Fractions_Official_Video>